

U.S. Department of the Interior  
Bureau of Land Management  
Little Snake Field Office  
455 Emerson Street  
Craig, CO 81625-1129

## ENVIRONMENTAL ASSESSMENT

**EA-NUMBER:** DOI-BLM-CO-N010-2010-0140 EA

**CASEFILE/PROJECT NUMBER/LEASE NUMBER:** COC074625 & COC074626

**PROJECT NAME:** Two Buried Natural Gas Pipeline Right-of-Ways

**LEGAL DESCRIPTION:** Both pipelines in Moffat County, Colorado

COC074625: SESE, Sec. 4, T11N, R101W, 6<sup>th</sup> PM

COC074626: Lot 8, Sec. 4; SENE, Sec. 5, T11N, R101W, 6<sup>th</sup> PM

**APPLICANT:** Questar Gas Management

**PLAN CONFORMANCE REVIEW:** The proposed action is subject to the following plan:

Name of Plans: Little Snake Resource Management Plan and Record of Decision (ROD)

Date(s) Approved: April 26, 1989

Remarks: The proposed buried natural gas pipelines would be located within Management Unit 2 (Little Snake Resource Management Plan). One of the objectives of Management Unit 2 is to provide for the development of the oil and gas resource. Realty actions such as rights-of-way, leases, and permits, can occur, consistent with the management objectives for this unit.

Results: The proposed action has been reviewed for conformance with this plan (43 CFR 1610.5, BLM 1617.3). The proposed action is in conformance with the objectives for this management unit.

**NEED FOR PROPOSED ACTION:** The purpose of the proposed buried natural gas pipelines is to allow for transportation of natural gas from producing wells for sale to the American public.

**PUBLIC SCOPING PROCESS:** The action in this EA is included in the NEPA log posted on the LSFO web site: [http://www.blm.gov/co/st/en/BLM\\_Information/nepa/lsofo.html](http://www.blm.gov/co/st/en/BLM_Information/nepa/lsofo.html).

**DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES:** The proposed action is to issue two right-of-way (ROW) grants for buried natural gas pipelines to Questar Gas Management (QGM). QGM plans to install two 3.5-inch steel, Grade X-42/52 natural gas buried pipelines for the Sugarloaf Wells # 17 & #18. The proposed pipelines would be located approximately 50 miles south of Rock Springs, Wyoming in the Sugarloaf Field. Pipelines, roads, and well pads have been constructed throughout the area. The approximate date work would start is fall of 2010 and the estimated duration of construction is one week for each pipeline. Moffat County Road #4 would be used to access the pipeline construction sites. The construction work force is expected to number 20 at the peak of construction and workers will commute daily.

The pipeline ROW for the Sugarloaf Well #17 would begin in the SENE Section 5, T11N, R101W, and then head in a northeasterly direction approximately 2049.5 feet to a tie-in point with the nearest collector pipeline. The entire length of pipeline would be installed on Federal surface.

The pipeline ROW for the Sugarloaf Well #18 would begin and end in the SESE Section 4, T11N, R101W, and then head in a northeasterly direction approximately 783.3 feet on Federal surface to the boundary with State of Colorado surface. The tie-in point with the nearest collector pipeline would be on State land. The entire length of pipeline would be 2,165.1 feet.

A 30-foot wide corridor is requested for construction, operations, and maintenance purposes. There would be no construction or routine maintenance activities during periods when soil is too wet to adequately support construction equipment. The total surface disturbance for the proposed pipelines would be 2.0 acres.

The 30-foot wide corridor would be cleared of vegetation and obstacles. Topsoil would be separated by means of windrowing or side casting. The first 6-inches of topsoil would be saved along the edge of the bladed corridor. During rehabilitation, the topsoil would be evenly spread over the disturbed areas. The pipeline trenches would be 30 inches wide and centered on the flagged survey line. The trench soil would be kept separate from the topsoil. The pipelines would be buried with a minimum cover of 30 inches. All disturbed areas would be recontoured and seeded. All permanent above ground facilities, piping, and valving would be painted with a flat, non-contrasting color harmonious with the surrounding landscape. QGM would be responsible for weed control on the disturbed areas and would obtain necessary permits.

**NO ACTION ALTERNATIVE:** The no action alternative is that the application for the two pipeline ROWs would not be approved and the Sugarloaf Wells #17 & 18 would produce gas without a delivery system. Since the proposed action is consistent with the ROD and the Oil and Gas Leasing EIS the no action alternative will not be analyzed further in this EA.

## **AFFECTED ENVIRONMENT/ENVIRONMENTAL CONSEQUENCES/MITIGATION MEASURES**

### **CRITICAL RESOURCES**

#### **AIR QUALITY**

Affected Environment: There are five federal Class I areas within 100 kilometers of the Little Snake Resource Management Area (LSRMA) boundary, all of which occur in Colorado. There are no federal Class I areas in Utah or Wyoming within 100 km of the LSRMA boundary. There are no non-attainment areas nearby that would be affected by either alternative.

Environmental Consequences: Activities associated with the proposed project that may affect air quality, namely dust from excavation and exhaust emissions from heavy equipment, fall below regulated EPA emission standards for the six criteria pollutants of concern (sulfur dioxide, nitrogen oxide, ground-level ozone, carbon monoxide, particulate matter [both PM<sub>2.5</sub> and PM<sub>10</sub>], and lead) and is not a significant source of these pollutant emissions that do occur in Moffat County. Impacts to air quality caused by the proposed action are considered minimal.

Mitigative Measures: None

Name of specialist and date: Emily Spencer, 9/23/10

#### **AREA OF CRITICAL ENVIRONMENTAL CONCERN**

Affected Environment: Not Present

Environmental Consequences: Not Applicable

Mitigative Measures: Not Applicable

Name of specialist and date: K. Shane Dittlinger, 09/13/2010

### **CULTURAL RESOURCES**

Affected Environment: Cultural resources, in this region of Colorado, range from late Paleo-Indian to Historic. For a general understanding of the cultural resources in this area of Colorado, see *An Overview of Prehistoric Cultural Resources, Little Snake Resource Area, Northwestern Colorado*, Bureau of Land Management Colorado, Cultural Resources Series, Number 20, *An Isolated Empire, A History of Northwestern Colorado*, Bureau of Land Management Colorado, Cultural Resource Series, Number 2 and *Colorado Prehistory: A Context for the Northern Colorado River Basin*, Colorado Council of Professional Archaeologists.

Environmental Consequences: The proposed projects, Sugarloaf #17 and #18 Pipelines, have undergone Class III cultural resource surveys:

Darlington, David

2010 Class III Cultural Resource Inventory for the Questar Gas Management Company  
Sugarloaf #17 Natural Gas Pipeline Moffat County, Colorado 10-WAS-016

2010 Class III Cultural Resource Inventory for the Questar Gas Management Company  
Sugarloaf #18 Natural Gas Pipeline Moffat County, Colorado 10-WAS-017

The survey identified no eligible cultural resources to the National Register of Historic Places. The proposed project may proceed as described with the following mitigative measures in place

Mitigative Measures:

The following standard stipulations apply for this project:

1. The operator is responsible for informing all persons who are associated with the operations that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are encountered or uncovered during any project activities, the operator is to immediately stop activities in the immediate vicinity of the find and immediately contact the authorized officer (AO) at (970) 826-5000. Within five working days, the AO will inform the operator as to:

- Whether the materials appear eligible for the National Register of Historic Places;
- The mitigation measures the operator will likely have to undertake before the identified area can be used for project activities again; and
- Pursuant to 43 CFR 10.4(g) (Federal Register Notice, Monday, December 4, 1995, Vol. 60, No. 232) the holder of this authorization must notify the AO, by telephone at (970) 826-5000, and with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43 CFR 10.4(c) and (d), you must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the authorized officer.

2. If the operator wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the AO will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the operator will be responsible for mitigation costs. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the operator will then be allowed to resume construction.

Name of specialist and date: Ethan Morton 09/13/10

## **ENVIRONMENTAL JUSTICE**

Affected Environment: The proposed action would be located in an area of isolated dwellings. Oil and gas development and ranching are the primary economic activities.

Environmental Consequences: The Proposed Action would not be expected to create a disproportionately high and adverse human health impact or environmental effect on minority or low-income populations within the area.

Mitigative Measures: None

Name of specialist and date: Barb Blackstun 09/13/10

## **FLOOD PLAINS**

Affected Environment: There are no 100-year floodplains present on public lands within the proposed project areas.

Environmental Consequences: None

Mitigative Measures: None

Name of specialist and date: Emily Spencer, 9/23/10

Source: USDA-NRCS Soil Data Viewer version 5.2.0016: <http://soildataviewer.nrcs.usda.gov/>

## **INVASIVE, NONNATIVE SPECIES**

Affected Environment: Invasive and noxious weeds are present in the area. Invasive annuals such as downy brome (cheatgrass), halogeton, blue mustard and yellow alyssum are common, occupying disturbed areas. Invasive annual weeds are typically established on disturbed and high traffic areas whereas biennial and perennial noxious weeds are less common in occurrence. Downy brome and halogeton are on the Colorado List C of noxious weeds and efforts to control halogeton are intensifying in this area. Colorado List B noxious weeds that are present within the surrounding areas include Russian knapweed, hoary cress (whitetop), Canada thistle and biennial thistles. The BLM is in cooperation with the Moffat County Cooperative Weed Management program to employ the principals of Integrated Pest Management to control noxious weeds on public lands. Additionally, the BLM, Moffat County, livestock operators, pipeline companies and oil and gas operators have formed the Northwest Colorado Weed Partnership to collaborate efforts on controlling weeds and finding the best integrated approaches to achieve results.

Environmental Consequences: The surface disturbing activities and associated traffic involved with construction of the pipeline and subsequent activities would create an environment and provide a mode of transport for invasive species and other noxious weeds

to become established. Construction equipment and any other vehicles brought onto the site can introduce weed species. Wind, water, recreation vehicles, livestock and wildlife would also assist with the distribution of weed seed into the newly disturbed areas. The annual invasive weed species (downy brome, yellow alyssum, blue mustard and other annual weeds) occurring on adjacent areas and would occupy the disturbed areas. The bare soils and the lack of competition from a perennial plant community would allow these weed species to grow unchecked and could affect the establishment of seeded plant species. Halogeton is a noxious annual weed that could occupy the disturbed areas. This weed species would likely require intensive control with herbicides to prevent it from moving into adjacent rangelands. Establishment of perennial grasses and other seeded plants is expected to provide the necessary control of invasive annual weeds within 2 or 3 years. Additional seeding treatments of the disturbed areas may be required in subsequent years if initial seeding efforts are not successful.

The perennial and biennial noxious weeds in the area are less frequently established on the uplands but some potential exists for their establishment in draws and swales or areas that would collect additional water. The largest concern in the project area would be for these species to become established and not be detected, providing seed which can be moved onto adjacent rangelands. The operator would be required to control any invasive and/or noxious weeds that become established within the disturbed areas involved with drilling and operating the well.

Mitigation attached as stipulations to minimize disturbance and obtain successful reclamation of the disturbed areas, as well as weed control utilizing integrated practices, including herbicide applications, would help to control the noxious weed species. All principles of Integrated Pest Management should be employed to control noxious and invasive weeds on public lands.

Mitigative Measures: None

Name of specialist and date: Christina Rhyne 9/15/10

## **MIGRATORY BIRDS**

Affected Environment: The pipeline construction area for Sugarloaf Wells # 17 & #18 provides potential nesting habitat for Brewer's sparrow and sage sparrow. Both species are listed on the USFWS 2008 Birds of Conservation Concern list.

Environmental Consequences: The proposed action would result in the long term loss of approximately 2 acres of nesting habitat for both Brewer's sparrow and sage sparrows. Timing restrictions intended to protect nesting greater sage-grouse would reduce impacts to both species but may not eliminate potential to impact active nest sites. There would be a low chance for take to occur as a result of the proposed action.

Mitigative Measures: None.

Name of specialist and date: Gail Martinez 9/24/10

## **NATIVE AMERICAN RELIGIOUS CONCERNS**

A letter was sent to the Eastern Shoshone, Uinta and Ouray Tribal Council, Southern Ute Tribal Council, Ute Mountain Ute Tribal Council on May 26, 2009. The letter listed the FY2010 projects that the BLM would notify them on and projects that would not require notification. A follow-up phone call was performed on July 26, 2009. No comments were received (letter on file at the Little Snake Field Office). This project requires no additional notification.

Name of specialist and date: Ethan Morton 09/13/10

## **PRIME & UNIQUE FARMLANDS**

Affected Environment: No Prime and/or Unique Farmlands are present in the vicinity of the proposed project areas.

Environmental Consequences: None

Mitigation Measures: None

Name of specialist and date: Emily Spencer, 9/23/10

Source: USDA-NRCS Soil Data Viewer version 5.2.0016: <http://soildataviewer.nrcs.usda.gov/>

## **T&E AND SENSITIVE ANIMALS**

Affected Environment: The area proposed for the pipeline currently provides suitable nesting habitat for greater sage-grouse, a BLM special status species and ESA candidate species.

Environmental Consequences: The pipeline construction could have a negative impact on greater sage-grouse. If construction activities were to take place during the breeding or nesting season (March 1 to June 30), impacts to sage grouse using this habitat would be expected. Impacts to grouse species from oil and gas development are discussed in the Colorado Oil and Gas EIS (1991). Impacts include, but are not limited to, displacement into less suitable habitat, nest abandonment, destruction of nests and loss of habitat. Other impacts, such as habitat fragmentation and the spread of exotic plants can also degrade sage grouse habitat (Connelly et al. 2004). Noise and increased human activity related to construction can disrupt breeding and nesting (Connelly et al. 2004). Holloran and Anderson (2004) found a higher annual decline in male lek attendance at leks within 3.2km from drilling activity. To prevent significant impacts to sage grouse species, construction and drilling activities associated with the proposed access roads, pipelines and well pads

should not be permitted from March 1 to June 30. This timing limitation would prevent accidental nest destruction, nest and lek abandonment and displacement into less suitable habitat. In order to prevent disturbing breeding greater sage-grouse during their breeding season, no nonemergency traffic should use this road between 8 PM and 10 AM.

Mitigative Measures: CO-30 No surface disturbing activities between March 1 and June 30 in order to protect nesting greater sage-grouse. In order to prevent disturbing breeding greater sage-grouse during their breeding season, no nonemergency traffic should use this road between 8 PM and 10 AM.

Name of specialist and date: Gail Martinez 9/24/10

References:

Bureau of Land Management. 1991. Colorado Oil and Gas Leasing and Development. Final Environmental Impact Statement. U.S. Dept. of Interior.

Connelly, J.W., S.T. Knick, M.A. Schroeder and S.J. Stiver. 2004. Conservation Assessment of Greater Sage-grouse and Sagebrush Habitats. Western Association of Fish and Wildlife Agencies. Unpublished Report. Cheyenne, Wyoming.

Holloran, M.J., and S.H. Anderson. 2004. Sage-grouse response to natural gas filed development in northwestern Wyoming. Page 16 in Proceedings of the 24th Meeting of the Western Agencies Sage and Columbian Sharp-tailed Grouse Technical Committee. Wenatchee, Washington (Abstract).

## **T&E AND SENSITIVE PLANTS**

Affected Environment: There are no federally listed threatened or endangered or BLM sensitive plant species present within or in the vicinity of the proposed rights-of-way.

Environmental Consequences, both alternatives: None

Mitigative Measures: None

Name of specialist and date: Hunter Seim 9/22/10

## **WASTES, HAZARDOUS OR SOLID**

Affected Environment: The Resource Conservation and Recovery Act (RCRA) of 1976 established a comprehensive program for managing hazardous wastes from the time they are produced until their disposal. U.S. Environmental Protection Agency (EPA) regulations define solid wastes as any “discarded materials” subject to a number of exclusions. On July 6, 1988, EPA determined that oil and gas exploration, development and production wastes would not be regulated as hazardous wastes under RCRA. The Comprehensive Environmental Response Compensation and Liability Act (CERCLA) of 1980 regulates mitigation of the release of hazardous substances (spillage, leaking, dumping, accumulation, etc.) or threat of a release of hazardous substances into the environment. Despite many oil



and gas constituent wastes being exempt from hazardous waste regulations, certain RCRA-exempt contaminants could be subject to regulations as hazardous substances under CERCLA. Civil and criminal penalties may be imposed if the hazardous waste is not managed in a safe manner and according to regulations. The Colorado Department of Public Health & Environment (CDPHE) administers hazardous waste regulations for oil and gas activities in Colorado.

**Environmental Consequences:** The pipelines fall under environmental regulations that impact exploration and production waste management and disposal practices and impose responsibility and liability for protection of human health and the environment from harmful waste management practices or discharges. The direct impact would be if a solid waste or hazardous material is discarded and contaminates the land surface either by solid, semi-solid, liquid, or contained gaseous material. Hazardous, civil, and criminal penalties may be imposed if the waste is not managed in a safe manner, and according to EPA regulations.

**Mitigative Measures:** The pipelines would be regulated under the Resource Conservation and Recovery Act (RCRA) Subtitle C regulations, which are extremely stringent, as well as the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) that provides for the exclusion of petroleum, including crude oil or any fraction thereof from the definition of hazardous substance, pollutant, or contaminant. The mitigation would include the stringent regulation of waste containment within the project areas.

Name of specialist and date: Shawn Wiser 09/22/10

## **WATER QUALITY - GROUND**

**Affected Environment:** There are no impacts to ground water with the proposed action.

**Environmental Consequences:** Not Applicable

**Mitigative Measures:** Not Applicable

Name of specialist and date: Marty O'Mara 9/27/10

## **WATER QUALITY - SURFACE**

**Affected Environment:** There are no perennial surface waters in or near the proposed project area. Any surface runoff from the project area would drain towards G Wash, an ephemeral tributary to the Canyon Creek. There are no water quality impairments or suspected water quality issues for waters influenced by the project area considered in the proposed action.

**Environmental Consequences:** Increased sedimentation from disturbed soils along the pipeline corridor towards G Wash during spring runoff or from high intensity rainstorms is the most likely environmental consequence from the proposed action. However, it is unlikely that large quantities of sediment would be transported off site and eventually reach

perennial waters. According to the ROW application, all disturbed areas would be recontoured and seeded, which would reduce the potential impacts caused by surface runoff.

Mitigative Measures: None

Name of specialist and date: Emily Spencer. 9/23/10

Reference:

Colorado Department of Public Health and Environment Water Quality Control Commission. 2010. Regulations #33, 37, and 93. <http://www.cdphe.state.co.us/regulations/wqccregs/index.html>

## **WETLANDS/RIPARIAN ZONES**

Affected Environment: There are no streams, wetlands, seeps, or springs on federal lands within or immediately adjacent to the proposed project sites.

Environmental Consequences: None

Mitigative Measures: None

Name of specialist and date: Emily Spencer, 9/23/10

## **WILD & SCENIC RIVERS**

Affected Environment: Not Present

Environmental Consequences: Not Applicable

Mitigative Measures: Not Applicable

Name of specialist and date: K. Shane Dittlinger 09/13/2010

## **WSAs, WILDERNESS CHARACTERISTICS**

Affected Environment: Not Present

Environmental Consequences: Not Applicable

Mitigative Measures: Not Applicable

Name of specialist and date: K. Shane Dittlinger, 09/13/2010

## **NON-CRITICAL ELEMENTS**

### **PALEONTOLOGY**

Affected Environment: The geologic formation at the surface is the Tertiary age Niland Tongue Member of the Wasatch Formation (Twn) overlain with Quaternary alluvium and colluvium. This formation has been classified as a Class Ia formation for the potential occurrence of scientifically significant fossils.

Environmental Consequences: Scientifically significant fossils are found abundantly within this formation (Armstrong & Wolney, 1989). The potential for discovery of significant fossils on this location is considered to be high. If any such fossils are located here, construction activities could damage the fossils and the information that could have been gained from them would be lost. The significance of this impact would depend upon the significance of the fossil. The proposed action could also constitute a beneficial impact to paleontological resources by increasing the chances for discovery of scientifically significant fossils.

Mitigative Measures: ceasing operations and notifying the Field Office Manager immediately upon discovery of a fossil during construction activities can effectively mitigate this impact. An assessment of the significance is made and a plan to retrieve the fossil or the information from the fossil is developed.

#### **Standard Discovery Stipulation**

"If cultural or paleontological resources are discovered during exploration operations under this license, the licensee shall immediately notify the Field Office Manager and shall not disturb such discovered resources until the Field Office Manager issues specific instructions.

- a. Within 5 working days after notification, the Field Office Manager shall evaluate any cultural resources discovered and shall determine whether any action may be required to protect or to preserve such discoveries.
- b. The cost of data recovery for cultural resources discovered during exploration operations shall be borne by the licensee, if the licensee is ordered to take any protective measures. Ownership of cultural resources discovered shall be determined in accordance with applicable law."

Name of specialist and date: Marty O'Mara 9/27/10

#### **References:**

Armstrong, Harley J. and Wolney, David G., 1989, Paleontological Resources of Northwest Colorado: A Regional Analysis, Museum of Western Colorado, Grand Junction, CO, prepared for Bur. Land Management, Vol. I of V.

Miller, A.E., 1977, Geology of Moffat County, Colorado, Colo. Geol. Surv. Map Series 3, 1:126,720.

## **REALTY AUTHORIZATIONS**

Affected Environment: The proposed project area is a developed oil and gas field and contains numerous buried pipeline rights-of-way and other realty authorizations.

Environmental Consequences: Existing buried pipelines or other facilities could be accidentally damaged during project activities. Impacts would be temporary until any damage is repaired.

Mitigative Measures: Potential damage to existing rights-of-way would be minimized by the following actions:

- Avoid existing rights-of-way during the project.
- Utilize the “One Call” system to locate and stake the centerline and limits of all underground facilities in the area prior to project initiation.
- Provide 48-hour notice to the owner/operator of all facilities prior to performing any work near existing rights-of-way.

Name of specialist and date: Barb Blackstun 09/13/10

## **SOILS**

Affected Environment: The proposed Sugarloaf Government Well #17 pipeline would be located within the Torriorthents soil mapping unit. These breaks soils are well drained with moderate permeability and medium potential for runoff. Available water capacity is very low and the typical profile it up to 12” deep of stony loam soils to weathered bedrock. These soils are limited mainly because they are shallow, stony, or droughty.

The proposed Sugarloaf Government Well #18 pipeline would be located within the Langspring sandy loam soil mapping unit. These plateau soils are well drained with moderate permeability and medium runoff potential. Available water capacity is moderate and the soil profile it typically up to 60” deep, comprised mostly of sandy clay loam. The main hazard in these soils is erosion unless close-growing plant cover is maintained.

Environmental Consequences: Vegetation and soil would be removed from approximately 2.0 acres of land between the two pipeline sites. Soil productivity would decline due to reduced soil microbial activity, impaired water infiltration, mixing of soil horizons, top soil loss, and introduction of weeds. Soil loss from construction would be greatest shortly after project start and would decrease in time as a result of stabilization through revegetation and reclamation of disturbed areas. Per applicant specifications, there would be no construction or routine maintenance activities during periods when soil is too wet to adequately support construction equipment, which would reduce soil compaction.

Mitigative Measures: None

Name of specialist and date: Emily Spencer. 9/23/10

## **UPLAND VEGETATION**

**Affected Environment:** The proposed pipelines would be located in salt desert and sagebrush-grass plant communities. Dominant plants present in the salt desert community include Nuttall's saltbush (*Atriplex nuttallii*), buckwheat (*Eriogonum* spp.), budsage (*Artemisia spicatum*), squirreltail (*Sitanion hystrix*), and Sandberg bluegrass (*Poa sandbergii*). The area contains small patches of Wyoming big sagebrush (*Artemisia tridentata*) and greasewood (*Sarcobatus vermiculatus*). Common non-native species on the site are halogeton (*Halogeton glomeratus*), belvedere summercypress (*Kochia scoparia*), and Russian thistle (*Salsola kali*). Belvedere summercypress and Russian thistle are present primarily adjacent to disturbances, but halogeton is present throughout the area.

Dominant plants present in the sagebrush-grass plant community include Wyoming big sagebrush, Nuttall's saltbush, shadscale (*Atriplex confertifolia*), green rabbitbrush (*Chrysothamnus viscidiflorus*), Hood's phlox (*Phlox hoodii*), squirreltail, Indian ricegrass (*Oryzopsis hymenoides*), and Sandberg bluegrass. Non-native species are present in this community as well, but in very low abundance. Non-natives present are halogeton, tumble mustard (*Descurainia pinnata*), and cheatgrass (*Bromus tectorum*).

**Environmental Consequences, proposed action:** The proposed action would remove approximately two acres of native vegetation. These removals would be minor in the larger plant community. Since all disturbance would be reseeded to native vegetation per the conditions of approval. As long as weeds are controlled and all disturbed areas are reseeded to prescribed mixes of native plant species and establishment is ensured as required, the negative impacts to the native plant community would be effectively mitigated.

**Environmental Consequences, no action:** None

**Mitigative Measures:** None

Name of specialist and date: Hunter Seim 9/22/10

## **WILDLIFE, AQUATIC**

**Affected Environment:** There is no habitat present for aquatic wildlife at either proposed pipeline site.

**Environmental Consequences:** None

**Mitigative Measures:** None

Name of specialist and date: Gail Martinez 9/24/10

## **WILDLIFE, TERRESTRIAL**

**Affected Environment:** The proposed pipeline locations would be within habitat for pronghorn antelope, mule deer and elk. These wells would be located in pronghorn antelope severe winter habitat. The project areas provide suitable habitat for a variety of small mammals, songbirds and reptiles.

**Environmental Consequences:** Approximately 2 acres of wildlife habitat would be disturbed as a result of construction of these pipelines. This includes disturbances for access road. Impacts to wildlife species from oil and gas development are discussed in the Colorado Oil and Gas EIS (1991). Impacts include, but are not limited to, displacement into less suitable habitat, increased stress and loss of habitat. Surrounding habitat in undisturbed areas should be capable of supporting any displaced wildlife. Once construction has been completed, most wildlife would be able to reoccupy areas surrounding the pipeline sites.

**Mitigative Measures:** No surface disturbing activities between December 1 and April 30 in order to protect wintering pronghorn antelope.

Name of specialist and date: Gail Martinez 9/24/10

**OTHER NON-CRITICAL ELEMENTS:** For the following elements, those brought forward for analysis will be formatted as shown above.

Non-Critical Element	NA or Not Present	Applicable or Present, No Impact	Applicable & Present and Brought Forward for Analysis
Fluid Minerals		EMO 09/27/10	
Forest Management	BSB 09/13/10		
Hydrology/Ground		EMO 09/27/10	
Hydrology/Surface			See Water Quality - Surface
Range Management		JHS 09/22/10	
Realty Authorizations			See Realty
Recreation/Travel Mgmt		KSD 09/13/10	
Socio-Economics		BSB 09/13/10	
Solid Minerals		JAM 09/27/10	
Visual Resources		KSD 09/13/10	
Wild Horse & Burro Mgmt	BSB 09/13/10		

**CUMULATIVE IMPACTS SUMMARY:** Cumulative impacts may result from the development of the two pipelines when added to non-project impacts that result from past,

present, and reasonably foreseeable future actions. The potential exists for future oil and gas development throughout the Sugarloaf Field. Currently numerous producing wells exist within a one-mile radius of the proposed pipelines. Other past or existing actions near the project area that have influence on the landscape are wildfire, recreation, hunting, grazing, and ranching activities.

Surface disturbance associated with oil and gas activity would increase the potential for erosion and sedimentation. Displacement of hunters and recreationists during the short-term construction and drilling periods would occur. Contrasts in line, form, color, and texture from development would impact the visual qualities on the landscape.

Cumulative impacts to the plant communities within the gas lease and adjacent areas include an incremental reduction of continuity in the plant communities in terms of acreages that remain undisturbed. Loss of continuity results in smaller and smaller areas of undisturbed native vegetation and the potential for loss of integrity within the larger plant community. Fragmented plant communities can lose resilience to natural and man-made disturbance due to isolation of areas from seed sources necessary for proper age class distribution of plants, and subsequently, a greater opportunity for stressors such as drought to have a more severe impact on the plant community as a whole. The increased disturbance also makes native plant communities more susceptible to invasion by annual weeds as vectors for increasing weeds. Even with weed control measures applied, the potential for weeds to move further into undisturbed remnant areas increases as these remnants become smaller and more isolated from larger undisturbed areas.

Cumulative impacts to the livestock grazing operations in the area are also increased through the proposed action. The grazing allotment in which this well is proposed is primarily a winter sheep allotment. The growth in wells, roads, and human activity has reduced the availability of forage in this area far beyond direct impacts caused by construction. Halogeton which has increased among the new roads and well pads is toxic to sheep. The resulting impact to grazing activities permitted in the area is a loss of available Animal Unit Months (AUMs), i.e. a loss of the amount of livestock that the allotment can reasonably carry. Due to recent years of drought, the livestock operators have only lightly used these allotments, so direct impacts to grazing activities have not been fully felt.

Habitat fragmentation from well pad construction and the associated roads have likely decreased the nesting suitability for migratory birds in the Hiawatha Oil & Gas Field. Ingelfinger (2001) found that roads associated with oil and gas development have a negative impact on passerines bird species. Bird densities were reduced within 100m of each road. Due to the amount of new road construction and an increase in traffic on these roads, passerine populations in the area are likely decreasing.

The cumulative impacts of additional wells, pipelines, and roads in the Sugarloaf Field would continue to degrade habitat for the greater sage grouse. Fragmentation, mostly due to road construction, is an important factor contributing to a decrease in habitat quality. Disturbances such as higher traffic volume and other human activities also contribute to degradation of habitat quality. However, as the area is not used for nesting, brood rearing, or wintering, these impacts

would be less severe. Continued oil and gas development would lead to decreased sage grouse use of the habitat.

Although big game species are able to adapt to disturbances better than other wildlife, increased development would still have impacts to mule deer and antelope. Timing stipulations adequately protect big game species during critical times of the year; however, continued oil and gas development would lead to decreased use of the habitat due to increased human activity. A significant amount of vehicle traffic occurs with oil and gas development. Impacts to big game may be vehicle-animal collisions, as these are a major cause of mortality for big game species.

References:

Ingelfinger, F. 2001. The Effects of Natural Gas Development on Sagebrush Steppe Passerines in Sublette County, Wyoming. University of Wyoming, Laramie, WY.

**STANDARDS:**

**PLANT AND ANIMAL COMMUNITY (animal) STANDARD:** The project area provides healthy productive wildlife habitat for a variety of species including big game, small mammals, song birds and reptiles. The development of these pipelines would result in a loss of approximately two acres of habitat. Surrounding habitat is sufficient to ensure that populations are not negatively impacted by this project. This standard is currently being met and would continue to be met in the future.

Name of specialist and date: Gail Martinez 9/24/10

**SPECIAL STATUS, THREATENED AND ENDANGERED SPECIES (animal) STANDARD:** The pipeline construction sites are within greater sage-grouse nesting habitat. Greater sage-grouse are a BLM special status species and an ESA candidate species. If construction or drilling activities were conducted during the nesting season, it is likely that greater sage-grouse nesting success would decrease in the project area. Timing restrictions will ensure that breeding and nesting sage-grouse are protected from disturbances. The loss of two acres of nesting habitat is not likely to affect sage-grouse however; human activity associated with this development and production wells may preclude sage-grouse use of the area in the future.

This standard is currently being met. This project alone would not preclude this standard from being met.

Name of specialist and date: Gail Martinez 9/24/10

**PLANT AND ANIMAL COMMUNITY (plant) STANDARD:** The Proposed Action would completely remove approximately two acres of native vegetation. As long as required weed control and reclamation practices are followed, the Proposed Action would meet this standard as negative impacts to the larger plant community would be minimized and the majority of the



disturbances would be essentially temporary. The No Action Alternative would meet this standard as no impacts to the plant community would occur.

Name of specialist and date: Hunter Seim 9/22/10

**SPECIAL STATUS, THREATENED AND ENDANGERED SPECIES (plant)**

**STANDARD:** There are no federally listed threatened or endangered or BLM sensitive plant species present within or in the vicinity of the proposed rights-of-way. This standard does not apply.

Name of specialist and date: Hunter Seim 9/22/10

**RIPARIAN SYSTEMS STANDARD:** There are no riparian or wetland resources identified within the proposed project areas. This standard does not apply.

Name of specialist and date: Emily Spencer, 9/23/10

**WATER QUALITY STANDARD:** The proposed action would meet the public land health standard for water quality. When the pipeline is installed the disturbed corridor would be reclaimed to approximate original contours, topsoil would be redistributed, and adapted plant species would be reseeded. These Best Management Practices would help to reduce accelerated erosion of the sites. There are no water quality impairments or suspected water quality issues for waters influenced by the project area.

Name of specialist and date: Emily Spencer, 9/23/10

**UPLAND SOILS STANDARD:** The proposed action would not meet the upland soil standard for land health during and/or in the short term after pipeline construction. Upland soil health is expected to return after reclamation practices have been successfully achieved.

Name of specialist and date: Emily Spencer, 9/23/10

**PERSONS/AGENCIES CONSULTED:** Uintah and Ouray Tribal Council, Colorado Native American Commission, Colorado State Historic Preservation Office.

**FINDING OF NO SIGNIFICANT IMPACT (FONSI)**  
**DOI-BLM-CO-N010- 2010-0140 EA**

Based on the analysis of potential environmental impacts contained in the EA and all other available information, I have determined that the proposal and the alternatives analyzed do not constitute a major Federal action that would adversely impact the quality of the human environment. Therefore, an EIS is unnecessary and will not be prepared. This determination is based on the following factors:

1. Beneficial, adverse, direct, indirect, and cumulative environmental impacts have been disclosed in the EA. Analysis indicated no significant impacts on society as a whole, the affected region, the affected interests or the locality. The physical and biological effects are limited to the Little Snake Resource Area and adjacent land.
2. Public health and safety would not be adversely impacted. There are no known or anticipated concerns with project waste or hazardous materials.
3. There would be no adverse impacts to regional or local air quality, prime or unique farmlands, known paleontological resources on public land within the area, wetlands, floodplain, areas with unique characteristics, ecologically critical areas or designated Areas of Critical Environmental Concern.
4. There are no highly controversial effects on the environment.
5. There are no effects that are highly uncertain or involve unique or unknown risk. Sufficient information on risk is available based on information in the EA and other past actions of a similar nature.
6. This alternative does not set a precedent for other actions that may be implemented in the future to meet the goals and objectives of adopted Federal, State or local natural resource related plans, policies or programs.
7. No cumulative impacts related to other actions that would have a significant adverse impact were identified or are anticipated.
8. Based on previous and ongoing cultural surveys and through mitigation by avoidance, no adverse impacts to cultural resources were identified or anticipated. There are no known American Indian religious concerns or persons or groups who might be disproportionately and adversely affected as anticipated by the Environmental Justice Policy.
9. No adverse impacts to any threatened or endangered species or their habitat that was determined to be critical under the Endangered Species Act were identified. If, at a future time, there could be the potential for adverse impacts, treatments would be modified or mitigated not to have an adverse effect or new analysis would be conducted.

**FINDING OF NO SIGNIFICANT IMPACT (FONSI)**  
**DOI-BLM-CO-N010- 2010-0140 EA**

10. This alternative is in compliance with relevant Federal, State, and local laws, regulations, and requirements for the protection of the environment.

**DECISION AND RATIONALE:** I have determined that construction of the buried natural gas pipelines for the Sugarloaf Wells #17 & #18 is in conformance with the approved land use plan. It is my decision to issue the right-of-way grants with the mitigation measures to Questar Gas Management Company. The grants authorize construction, operation, maintenance, and termination of natural gas pipelines located on public land in: Lot 8, SESE, Sec. 4; SENE, Sec. 5, T11N, R101W, 6th P.M., Moffat County, Colorado. ROW grant COC074625 is 783.3 feet long and 30 feet wide. ROW grant COC074626 is 2,049.5 feet long and 30 feet wide. The ROW grants are issued for 30 years with the right of renewal. The ROWs are subject to rental pursuant to 43 CFR 2803.1-2. The projects will be monitored as stated in the Compliance Plan outlined below.

It is the policy of the Bureau of Land Management to grant ROWs to occupy and use public land where such is consistent with resource values, the Bureau's planning system, and local government concerns. To this effect, no conflicts were found; the action does not result in any undue or unnecessary environmental degradation. The action is consistent with the Little Snake Resource Management Plan. The proposed use, as planned and mitigated, is a suitable use of the land, which will not conflict with the present or known future use of the area. The action is consistent with Section 28 of the Mineral Leasing Act of 1920, as amended (30 U.S.C. 185) or Title V of the Federal Land Policy and Management Act of October 21, 1976 (90 Stat. 2776; 43 U.S.C. 1761) and the regulations authorizing use of federal land under 43 CFR 2800.

**MITIGATION MEASURES:** See Exhibit A, Stipulations.

**COMPLIANCE PLAN(S):**

**Compliance Schedule:** Compliance will be conducted during the construction phase and reclamation phase to insure that all terms and conditions specified in the right-of-way grant and stipulations are followed. The Sugarloaf pipelines will be on a five-year compliance schedule after completion of the project.

**Monitoring Plan:** The Sugarloaf Well #17 & #18 pipeline locations will be monitored during the term of the right-of-way for compliance with the grant, stipulations, POD, and pertinent regulations until final abandonment is approved; monitoring will help determine the effectiveness of mitigation and document the need for additional mitigative measures.

**Assignment of Responsibility:** Responsibility for implementation of the compliance schedule and monitoring plan will be assigned to the Realty staff in the Little Snake Field Office. The primary inspector will be the Realty Specialist.

**FINDING OF NO SIGNIFICANT IMPACT (FONSI)**  
DOI-BLM-CO-N010- 2010-0140 EA

**SIGNATURE OF PREPARER:**

**DATE SIGNED:**

**SIGNATURE OF ENVIRONMENTAL REVIEWER:**

**DATE SIGNED:**

**SIGNATURE OF AUTHORIZED OFFICIAL:**

**DATE SIGNED:**

**EXHIBITS: Exhibit A, Stipulations**

Exhibit A  
Stipulations  
COC074625  
Sugarloaf Well #18 Pipeline

1. The holder shall construct, operate, and maintain the facilities, improvements, and structures within the permit in strict conformity with the plan(s) of development identified with the application. Any relocation, additional construction, or use that is not in accord with the approved plan(s) of development, shall not be initiated without the prior written approval of the authorized officer. A copy of the complete permit, including all stipulations and approved plan(s) of development, shall be made available on the permit area during construction, operation, and termination to the authorized officer. Noncompliance with the above will be grounds for an immediate temporary suspension of activities if it constitutes a threat to public health and safety or the environment.
2. This right-of-way shall terminate without further action or notice on the part of this Bureau if at any time subsequent to its effective date, the pipeline facilities authorized are no longer necessary for the holder to service an active oil and gas well.
3. The Little Snake Field Office will be given 48-hour notification prior to commencing construction and/or reclamation work. Contact the Little Snake Field Office (970) 826-5000 to report when work will commence.
4. No surface disturbing activities between March 1 and June 30 in order to protect nesting greater sage-grouse. In order to prevent disturbing breeding greater sage-grouse during their breeding season, no nonemergency traffic should use this road between 8 PM and 10 AM.
5. Any cultural and/or paleontological (fossil) resource (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the authorized officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the authorized officer. An evaluation of the discovery will be made by the authorized officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and the authorized officer will make any decision as to proper mitigation measures after consulting with the holder..
6. The operator is responsible for informing all persons who are associated with the operations that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are encountered or uncovered during any project activities, the operator is to immediately stop activities in the immediate vicinity of the find and immediately contact the authorized officer (AO) (970) 826-5000. Within five working days the AO will inform the operator as to:
  - whether the materials appear eligible for the National Register of Historic Places;
  - the mitigation measures the operator will likely have to undertake before the identified area can be used for project activities again and;
  - If the operator wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the AO will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the operator will be responsible for mitigation costs. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the operator will then be allowed to resume construction.
7. Pursuant to 43 CFR 10.4(g) the holder of this authorization must notify the authorized officer, by telephone, with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43 CFR 10.4(c) and (d), you must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the authorized officer.
8. The grant does not relieve you of your responsibility to obtain other required federal, state, or local permits.
9. The holder(s) shall comply with all applicable Federal laws and regulations existing or hereafter enacted or

promulgated. In any event, the holder(s) shall comply with the Toxic Substances Control Act of 1976, as amended (15 U.S.C. 2601, et seq.) with regard to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation and Liability Act of 1980, Section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.

10. The holder of Right-of-Way No. COC074625 agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C 9601, et seq. or the Resource Conservation and Recovery Act of 1976, 42 U.S.C. 6901, et seq.) on the right-of-way (unless the release or threatened release is wholly unrelated to the right-of-way holder's activity on the right-of-way). This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

11. If during any phase of the construction, operation, or termination of the pipeline or related facilities any oil or other pollutant should be discharged from the pipeline system, or from containers or vehicles impacting Federal lands, the control and total removal, disposal, and cleanup of such oil or other pollutant, wherever found, shall be the responsibility of the holder, regardless of fault. Upon failure of holder to control, cleanup, or dispose of such discharge on or affecting Federal lands, or to repair all damages to Federal lands resulting therefrom, the authorized officer may take such measures as he deems necessary to control and cleanup the discharge and restore the area, including, where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such action by the authorized officer shall not relieve the holder of any liability or responsibility.

12. Construction sites shall be maintained in a sanitary condition at all times; waste materials at those sites shall be disposed of promptly at an appropriate waste disposal site. 'Waste' means all discarded matter including, but not limited to, human waste, trash, garbage, refuse, oil drums, petroleum products, ashes, and equipment. No hazardous materials/waste or trash shall be disposed of on the public lands. If a release does occur, it shall be reported to the Little Snake Field Office immediately (970) 826-5000.

13. Utilize the "One Call" system to locate and stake the centerline and limits of all underground facilities in the area of proposed excavations.

14. Provide 48 hour notification to the owner/operator of facilities prior to performing any work within 10 feet of buried or above ground pipelines.

14. Construction or other surface-disturbing activities will not be allowed when the soils are saturated to a depth of more than 3 inches. Construction activities will not be allowed to commence if the topsoil cannot be separated from the subsoil during adverse environmental conditions (i.e. when soils are frozen or muddy). During periods of adverse conditions such as thawing, heavy rains, snow, or flooding, all construction activities off existing maintained roads that create excessive surface rutting will be suspended.

15. Pipeline route will be brush beat prior to stripping of topsoil.

15. All pipelines shall be buried and trenches shall be compacted during back-filling. Compact backfilled soil material in the first few feet above the pipeline sufficiently to prevent excessive settling of soil and channelization of surface water, but not to the extent to significantly inhibit percolation of water. The backfilled surface soil should be firm and allow good infiltration of water. Pipeline trenches will be maintained in order to correct settlement and prevent erosion.

16. Surface soil material will be stockpiled to the side of the pipeline routes during pipeline construction. Surface soil material will be segregated and will not be mixed or covered with subsurface material. Surface

disturbance will be minimized to the maximum extent possible.

17. Pipeline routes will be graded to conform to the adjacent terrain, waterbarred, and seeded.

18. In the event that topsoil cannot be properly distributed during reclamation, additional precautions will be taken to minimize erosion of subsoil. Periodic monitoring to assess site specific environmental conditions, timing of operations and use of mulches and/or barriers may be required to ensure that erosion is not significant within the pipeline easement.

19. After pipeline construction is completed, pipeline markers will be installed for identifying the pipe's location. Install pipeline warning signs indicating location of buried pipeline, company name, and telephone number.

20. All permanent (on-site for six months or longer), above-ground structures constructed or installed within the pipeline corridor will be painted shale green. All structures will be painted within six months of installation. Structures required to comply with OSHA (Occupational Safety and Health Act) will be excluded.

21. Additional mitigative measures will be employed to prevent or reduce accelerated erosion if it begins to occur within or on constructed drainage and diversion ditches or surface drainages affected by the pipeline corridor.

22. All construction and maintenance activities will be contained within the 30-foot easement, vehicular access for reclamation, maintenance and emergencies is authorized, but the easement will not be used as a road after construction is completed.

23. Control of noxious weeds will be required through successful vegetation establishment and/or herbicide application. It is the responsibility of the lease operator to insure compliance with all local, state, and federal laws and regulations, as well as labeling directions specific to the use of any given herbicide.

24. A Pesticide Use Proposal (PUP) will be approved prior to application of herbicides and/or other pesticides on Federal surface; contact the Little Snake Field Office to obtain a PUP form to request this authorization. Submit the PUP two (2) months in advance of planned application. In the event you elect to apply herbicide or other pesticide as described and authorized on the approved PUP, you must report this use within 24 hours on Bureau of Land Management form titled Pesticide Application Record.

25. The holder shall seed all disturbed areas, using an agreed upon method suitable for the location. Seeding shall be repeated if a satisfactory stand is not obtained after the second growing season.

26. RECLAMATION:

The holder is required to use the reclamation practices necessary to reclaim all disturbed areas. Reclamation will ensure surface and subsurface stability, growth of self-generating, permanent, vegetative cover and compatibility with post land use. The vegetation will be diverse and of the same seasonal growth as adjoining vegetation. Post land use will be determined by the authorized officer but normally will be the same as adjoining uses.

The holder is required to use the reclamation practices necessary to reclaim all disturbed areas. Reclamation will ensure surface and subsurface stability, growth of a self-regenerating permanent vegetative cover and compatibility with post land use. The vegetation will be diverse and of the same seasonal growth as adjoining vegetation. Post land use will be determined by the Authorized Officer but normally will be the same as adjoining uses.

Reclamation practices which must be applied or accomplished are: re-grading to the approximate original contour, effectively controlling noxious weeds, separating, storing and protecting topsoil for redistribution during final abandonment, seeding and controlling erosion. If topsoil is not present, or quantities are insufficient to achieve reclamation goals, a suitable plant growth media will be separated, stored and protected for later use. Reclamation

will begin with the salvaging of topsoil and continue until the required standards are met. If use of the disturbed area is for a short time (less than one year), practices, which ensure stability, will be used as necessary during the project, and practices needed to achieve final abandonment will commence immediately upon completion of the approved activity use and be completed, with the exception of vegetative establishment, within one year.

If use of the area is for longer periods of time (greater than one year), interim reclamation is required on the unused areas. Interim reclamation of the unused areas will begin immediately upon completion of the permanent facility(s) and be completed, with exception of vegetative establishment, within one year. For both short and long term projects vegetative establishment will be monitored annually. If the desired vegetation is not established by the end of the second growing season, cultural practices necessary for establishment will be implemented prior to the beginning of the next growing season. Interim reclamation, unless otherwise approved, will require meeting the same standards as final abandonment with the exception of original contour, which may be only partially achievable.

Annual reports consisting of reclamation practices completed and the effectiveness of the reclamation will be provided to the Little Snake Field Office. The first report will be due in January following initiation of reclamation practices and annually thereafter until final abandonment is approved.

There are numerous reclamation practices and techniques that increase the success rate of reclamation and stabilization. With the exception of those stated above, it is the lessee's prerogative to use those (s)he chooses to accomplish the objective. However, it is recommended that state-of-the-art reclamation, stabilization, and management practices be used to achieve the desired objective in a timely and cost-effective manner.

The following definitions and measurements will be used to accomplish and determine if reclamation has been achieved:

Permanent vegetative cover will be accomplished if the basal cover of perennial species, adapted to the area, is at least ninety (90) percent of the basal cover of the undisturbed vegetation of adjoining land or the potential basal cover as defined in the Soil Conservation Service Range Site(s) for the area.

Diverse will be accomplished if at least two (2) perennial genera and three (3) perennial species, adapted to the area, make up the basal cover of the reclaimed area in precipitation zones thirteen (13) inches or less and three (3) perennial genera and four (4) perennial species in precipitation zones greater than thirteen (13) inches. One species will not make up more than fifty (50) percent of the perennial vegetation by basal cover.

Self-regenerating and adapted to the area will be evident if the plant community is in good vigor, there is evidence of successful reproduction, and the species are those commonly used and accepted in the area.

Surface stability will be accomplished if soil movement, as measured by deposits around obstacles, depths of truncated areas, and height of pedestalling, is not greater than three tenths (0.3) of an inch and if erosion channels (rills, gullies, etc.) are less than one (1) inch in depth and at intervals greater than ten (10) feet.

If this standard is not met by the end of the second growing season, two alternatives exist depending on the severity of the erosion:

If erosion were greater than two (2) times the allowable amount, corrective action would have to be taken by the responsible company at that time.

If erosion is less than or equal to two (2) times the allowable amount, and it is determined the erosion occurred during vegetative establishment and the site may become stable, no corrective action would be required at that time. Another check (and measurement) would be performed a year later to determine if stability standards had been met. If the original measurements have not increased by more than the allowed standard, the standard would be considered met. However, if the increase were greater than the allowed standard, corrective action would be required.



Subsurface stability (mass wasting event) is of concern if disturbance has included excavation over four (4) feet in depth and greater than 10,000 square feet in area on slopes thirty five (35) percent and greater, or on any erosion-prone slope (Danforth Hills, Vermillion Bluffs, and badland areas). When these conditions occur, length of liability for reclamation and final abandonment will continue for ten (10) years following re-contouring to original contour or for such time that climatic patterns provide two (2) consecutive years in which measurable precipitation totals at least 120 percent of average from October 1 through September 30, as measured by data averaged from nearby regional weather stations.

The Authorized Officer may waive this stipulation, or portions of it. Such waiver will be documented and justified when not applicable, or when objectives are accomplished through another method.

27. Prior to termination of the right-of-way, the holder shall contact the authorized officer to arrange a pretermination conference. This conference will be held to review the termination provisions of the permit.

Exhibit A  
Stipulations  
COC074626  
Sugarloaf Well #17 Pipeline

1. The holder shall construct, operate, and maintain the facilities, improvements, and structures within the permit in strict conformity with the plan(s) of development identified with the application. Any relocation, additional construction, or use that is not in accord with the approved plan(s) of development, shall not be initiated without the prior written approval of the authorized officer. A copy of the complete permit, including all stipulations and approved plan(s) of development, shall be made available on the permit area during construction, operation, and termination to the authorized officer. Noncompliance with the above will be grounds for an immediate temporary suspension of activities if it constitutes a threat to public health and safety or the environment.
2. This right-of-way shall terminate without further action or notice on the part of this Bureau if at any time subsequent to its effective date, the pipeline facilities authorized are no longer necessary for the holder to service an active oil and gas well.
3. The Little Snake Field Office will be given 48-hour notification prior to commencing construction and/or reclamation work. Contact the Little Snake Field Office (970) 826-5000 to report when work will commence.
4. No surface disturbing activities between March 1 and June 30 in order to protect nesting greater sage-grouse. In order to prevent disturbing breeding greater sage-grouse during their breeding season, no nonemergency traffic should use this road between 8 PM and 10 AM.
5. Any cultural and/or paleontological (fossil) resource (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the authorized officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the authorized officer. An evaluation of the discovery will be made by the authorized officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and the authorized officer will make any decision as to proper mitigation measures after consulting with the holder..
6. The operator is responsible for informing all persons who are associated with the operations that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are encountered or uncovered during any project activities, the operator is to immediately stop activities in the immediate vicinity of the find and immediately contact the authorized officer (AO) (970) 826-5000. Within five working days the AO will inform the operator as to:
  - whether the materials appear eligible for the National Register of Historic Places;
  - the mitigation measures the operator will likely have to undertake before the identified area can be used for project activities again and;
  - If the operator wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the AO will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the operator will be responsible for mitigation costs. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the operator will then be allowed to resume construction.
7. Pursuant to 43 CFR 10.4(g) the holder of this authorization must notify the authorized officer, by telephone, with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43 CFR 10.4(c) and (d), you must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the authorized officer.
8. The grant does not relieve you of your responsibility to obtain other required federal, state, or local permits.
9. The holder(s) shall comply with all applicable Federal laws and regulations existing or hereafter enacted or

promulgated. In any event, the holder(s) shall comply with the Toxic Substances Control Act of 1976, as amended (15 U.S.C. 2601, et seq.) with regard to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation and Liability Act of 1980, Section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.

10. The holder of Right-of-Way No. COC074626 agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C 9601, et seq. or the Resource Conservation and Recovery Act of 1976, 42 U.S.C. 6901, et. seq.) on the right-of-way (unless the release or threatened release is wholly unrelated to the right-of-way holder's activity on the right-of-way). This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

11. If during any phase of the construction, operation, or termination of the pipeline or related facilities any oil or other pollutant should be discharged from the pipeline system, or from containers or vehicles impacting Federal lands, the control and total removal, disposal, and cleanup of such oil or other pollutant, wherever found, shall be the responsibility of the holder, regardless of fault. Upon failure of holder to control, cleanup, or dispose of such discharge on or affecting Federal lands, or to repair all damages to Federal lands resulting therefrom, the authorized officer may take such measures as he deems necessary to control and cleanup the discharge and restore the area, including, where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such action by the authorized officer shall not relieve the holder of any liability or responsibility.

12. Construction sites shall be maintained in a sanitary condition at all times; waste materials at those sites shall be disposed of promptly at an appropriate waste disposal site. 'Waste' means all discarded matter including, but not limited to, human waste, trash, garbage, refuse, oil drums, petroleum products, ashes, and equipment. No hazardous materials/waste or trash shall be disposed of on the public lands. If a release does occur, it shall be reported to the Little Snake Field Office immediately (970) 826-5000.

13. Utilize the "One Call" system to locate and stake the centerline and limits of all underground facilities in the area of proposed excavations.

14. Provide 48 hour notification to the owner/operator of facilities prior to performing any work within 10 feet of buried or above ground pipelines.

15. Construction or other surface-disturbing activities will not be allowed when the soils are saturated to a depth of more than 3 inches. Construction activities will not be allowed to commence if the topsoil cannot be separated from the subsoil during adverse environmental conditions (i.e. when soils are frozen or muddy). During periods of adverse conditions such as thawing, heavy rains, snow, or flooding, all construction activities off existing maintained roads that create excessive surface rutting will be suspended.

16. Pipeline route will be brush beat prior to stripping of topsoil.

17. All pipelines shall be buried and trenches shall be compacted during back-filling. Compact backfilled soil material in the first few feet above the pipeline sufficiently to prevent excessive settling of soil and channelization of surface water, but not to the extent to significantly inhibit percolation of water. The backfilled surface soil should be firm and allow good infiltration of water. Pipeline trenches will be maintained in order to correct settlement and prevent erosion.

18. Surface soil material will be stockpiled to the side of the pipeline routes during pipeline construction. Surface soil material will be segregated and will not be mixed or covered with subsurface material. Surface

disturbance will be minimized to the maximum extent possible.

19. Pipeline routes will be graded to conform to the adjacent terrain, waterbarred, and seeded.

20. In the event that topsoil cannot be properly distributed during reclamation, additional precautions will be taken to minimize erosion of subsoil. Periodic monitoring to assess site specific environmental conditions, timing of operations and use of mulches and/or barriers may be required to ensure that erosion is not significant within the pipeline easement.

21. After pipeline construction is completed, pipeline markers will be installed for identifying the pipe's location. Install pipeline warning signs indicating location of buried pipeline, company name, and telephone number.

22. All permanent (on-site for six months or longer), above-ground structures constructed or installed within the pipeline corridor will be painted shale green. All structures will be painted within six months of installation. Structures required to comply with OSHA (Occupational Safety and Health Act) will be excluded.

23. Additional mitigative measures will be employed to prevent or reduce accelerated erosion if it begins to occur within or on constructed drainage and diversion ditches or surface drainages affected by the pipeline corridor.

24. All construction and maintenance activities will be contained within the 30-foot easement, vehicular access for reclamation, maintenance and emergencies is authorized, but the easement will not be used as a road after construction is completed.

25. Control of noxious weeds will be required through successful vegetation establishment and/or herbicide application. It is the responsibility of the lease operator to insure compliance with all local, state, and federal laws and regulations, as well as labeling directions specific to the use of any given herbicide.

26. A Pesticide Use Proposal (PUP) will be approved prior to application of herbicides and/or other pesticides on Federal surface; contact the Little Snake Field Office to obtain a PUP form to request this authorization. Submit the PUP two (2) months in advance of planned application. In the event you elect to apply herbicide or other pesticide as described and authorized on the approved PUP, you must report this use within 24 hours on Bureau of Land Management form titled Pesticide Application Record.

27. The holder shall seed all disturbed areas, using an agreed upon method suitable for the location. Seeding shall be repeated if a satisfactory stand is not obtained after the second growing season.

#### 28. RECLAMATION:

The holder is required to use the reclamation practices necessary to reclaim all disturbed areas. Reclamation will ensure surface and subsurface stability, growth of self-generating, permanent, vegetative cover and compatibility with post land use. The vegetation will be diverse and of the same seasonal growth as adjoining vegetation. Post land use will be determined by the authorized officer but normally will be the same as adjoining uses.

The holder is required to use the reclamation practices necessary to reclaim all disturbed areas. Reclamation will ensure surface and subsurface stability, growth of a self-regenerating permanent vegetative cover and compatibility with post land use. The vegetation will be diverse and of the same seasonal growth as adjoining vegetation. Post land use will be determined by the Authorized Officer but normally will be the same as adjoining uses.

Reclamation practices which must be applied or accomplished are: re-grading to the approximate original contour, effectively controlling noxious weeds, separating, storing and protecting topsoil for redistribution during final abandonment, seeding and controlling erosion. If topsoil is not present, or quantities are insufficient to achieve reclamation goals, a suitable plant growth media will be separated, stored and protected for later use. Reclamation

will begin with the salvaging of topsoil and continue until the required standards are met. If use of the disturbed area is for a short time (less than one year), practices, which ensure stability, will be used as necessary during the project, and practices needed to achieve final abandonment will commence immediately upon completion of the approved activity use and be completed, with the exception of vegetative establishment, within one year.

If use of the area is for longer periods of time (greater than one year), interim reclamation is required on the unused areas. Interim reclamation of the unused areas will begin immediately upon completion of the permanent facility(s) and be completed, with exception of vegetative establishment, within one year. For both short and long term projects vegetative establishment will be monitored annually. If the desired vegetation is not established by the end of the second growing season, cultural practices necessary for establishment will be implemented prior to the beginning of the next growing season. Interim reclamation, unless otherwise approved, will require meeting the same standards as final abandonment with the exception of original contour, which may be only partially achievable.

Annual reports consisting of reclamation practices completed and the effectiveness of the reclamation will be provided to the Little Snake Field Office. The first report will be due in January following initiation of reclamation practices and annually thereafter until final abandonment is approved.

There are numerous reclamation practices and techniques that increase the success rate of reclamation and stabilization. With the exception of those stated above, it is the lessee's prerogative to use those (s)he chooses to accomplish the objective. However, it is recommended that state-of-the-art reclamation, stabilization, and management practices be used to achieve the desired objective in a timely and cost-effective manner.

The following definitions and measurements will be used to accomplish and determine if reclamation has been achieved:

Permanent vegetative cover will be accomplished if the basal cover of perennial species, adapted to the area, is at least ninety (90) percent of the basal cover of the undisturbed vegetation of adjoining land or the potential basal cover as defined in the Soil Conservation Service Range Site(s) for the area.

Diverse will be accomplished if at least two (2) perennial genera and three (3) perennial species, adapted to the area, make up the basal cover of the reclaimed area in precipitation zones thirteen (13) inches or less and three (3) perennial genera and four (4) perennial species in precipitation zones greater than thirteen (13) inches. One species will not make up more than fifty (50) percent of the perennial vegetation by basal cover.

Self-regenerating and adapted to the area will be evident if the plant community is in good vigor, there is evidence of successful reproduction, and the species are those commonly used and accepted in the area.

Surface stability will be accomplished if soil movement, as measured by deposits around obstacles, depths of truncated areas, and height of pedestalling, is not greater than three tenths (0.3) of an inch and if erosion channels (rills, gullies, etc.) are less than one (1) inch in depth and at intervals greater than ten (10) feet.

If this standard is not met by the end of the second growing season, two alternatives exist depending on the severity of the erosion:

If erosion were greater than two (2) times the allowable amount, corrective action would have to be taken by the responsible company at that time.

If erosion is less than or equal to two (2) times the allowable amount, and it is determined the erosion occurred during vegetative establishment and the site may become stable, no corrective action would be required at that time. Another check (and measurement) would be performed a year later to determine if stability standards had been met. If the original measurements have not increased by more than the allowed standard, the standard would be considered met. However, if the increase were greater than the allowed standard, corrective action would be required.

Subsurface stability (mass wasting event) is of concern if disturbance has included excavation over four (4) feet in depth and greater than 10,000 square feet in area on slopes thirty five (35) percent and greater, or on any erosion-prone slope (Danforth Hills, Vermillion Bluffs, and badland areas). When these conditions occur, length of liability for reclamation and final abandonment will continue for ten (10) years following re-contouring to original contour or for such time that climatic patterns provide two (2) consecutive years in which measurable precipitation totals at least 120 percent of average from October 1 through September 30, as measured by data averaged from nearby regional weather stations.

The Authorized Officer may waive this stipulation, or portions of it. Such waiver will be documented and justified when not applicable, or when objectives are accomplished through another method.

29. Prior to termination of the right-of-way, the holder shall contact the authorized officer to arrange a pretermination conference. This conference will be held to review the termination provisions of the permit.